

JACQUIN'S SPECIES OF BUNCHOSIA (MALPIGHIACEAE) FROM CARTAGENA, COLOMBIA

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ABSTRACT. Neotypes are proposed for *Malpighia diphylla* Jacq., *M. nitida* Jacq., and *M. odorata* Jacq., the basionyms for the three species of *Bunchosia* that Jacquin described from Cartagena, Colombia. *Bunchosia diphylla* (Jacq.) Cuatrec. & Croat is the correct name for what has been called *B. columbica* Nied. *Bunchosia nitida* (Jacq.) DC. is the oldest name for *B. cornifolia* H. B. K. *Bunchosia odorata* (Jacq.) DC. has been in use for various taxa for some time; its typification should stabilize the application of the name.

In 1760, Jacquin described three species of what he considered *Malpighia* from the vicinity of Cartagena, Colombia, with diagnoses that were brief but adequate to effect valid publication. In 1763 he published more complete descriptions of the same species, which were *Malpighia diphylla* Jacq., *M. nitida* Jacq., and *M. odorata* Jacq. At that time all three genera of Malpighiaceae with fleshy fruits (now *Bunchosia* H. B. K., *Byrsonima* H. B. K., and *Malpighia* L.) were still accommodated in *Malpighia*. It is clear from Jacquin's descriptions that *M. nitida* and *M. odorata* could only have been species of *Bunchosia*—both were described as having axillary racemes, a single style (with a bifid stigma in *M. odorata*), and two seeds, all characters of two-carpellate species of *Bunchosia* that would not be found in any species of *Byrsonima* or *Malpighia*. Moreover, the 1763 illustration of the fruit of *M. odorata* (pl. 177, fig. 41) unequivocally establishes its identity as a *Bunchosia*. The generic identity of *M. diphylla* is not quite so obvious. The plant was described as an erect shrub with yellow petals, red berries, and unbranched racemes terminating two-leaved [lateral] branchlets ("in ramusculis diphyllis," 1763, p. 136). Such a plant could not be a *Malpighia*, which always has the petals pink, pale purple, or white (Anderson 2001a). *Byrsonima* has a racemose inflorescence and many species have yellow petals (Anderson 2001a), but the raceme in that genus always terminates main leafy stems, not lateral shoots with only two leaves; I know of no species of *Byrsonima* that would fit Jacquin's description of *M. diphylla*. That fact, plus the fact that there is a species of *Bunchosia* in the Cartagena region that matches Jacquin's description (see below), makes it essentially certain that all three of Jacquin's Cartagena species of *Malpighia* were actually species of *Bunchosia*. Although he did not give all the characters we would like to have, it is still possible to write a simple key to those three species based entirely on Jacquin's 1763 descriptions:

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| 1. Racemes terminating 2-leaved axillary shoots. | <i>M. diphylla</i> . |
| 1. Racemes axillary, lacking vegetative leaves. | |
| 2. Leaves tomentose on both sides. | <i>M. odorata</i> . |
| 2. Leaves "shining" [i.e., without obvious, spreading vestiture]. | <i>M. nitida</i> . |

Cuatrecasas (1958), in his treatment of *Bunchosia* for Colombia, recorded three species of the genus in the Caribbean lowlands of Magdalena, Atlántico, and Bolívar, including the area of Cartagena visited by Jacquin, and by Humboldt

and Bonpland more than 40 years later (Sprague 1926). Those three species fit the key above, and in most characters agree perfectly with Jacquin's descriptions, so there would seem to be little doubt that they are the same three species, and Jacquin's are the earliest names for them all. Cuatrecasas saw no Jacquin type specimens, Niedenzu (1928) cited no Jacquin collections of *Bunchosia*, and I have never seen a specimen that could be the type for any of these names. Moreover, Stafleu (1971) held out little hope of such specimens ever being found. Therefore, I have decided to propose neotypes for all three names, which is the purpose of this note.

Bunchosia diphylla (Jacq.) Cuatrec. & Croat, Ann. Missouri Bot. Gard. 67: 865. 1981 ["1980"]. *Malpighia diphylla* Jacq., Enum. Syst. Pl. 21. 1760; Select. Stirp. Amer. Hist. 136. 1763. *Byrsonima diphylla* (Jacq.) DC., Prodr. 1: 581. 1824.—TYPE: COLOMBIA. [Magdalena]: Santa Marta, 150 ft, Apr fl, *H. H. Smith 1506* (neotype, here designated: MICH!).

Bunchosia columbica Nied., Repert. Spec. Nov. Regni Veg. 26: 346. 1929.—TYPE: COLOMBIA. [Magdalena]: Santa Marta, *A. Schultze 1614* (holotype: B†, F neg. 12839!).

In 1958 Cuatrecasas used the name *Bunchosia columbica* for this species. He discussed *Malpighia diphylla* as a doubtful species of *Byrsonima*, citing *Romero-Castañeda 1803* (COL), which is from near Cartagena and fits Jacquin's description well. I saw the two sheets of that collection in COL in 1976, and I agree with Cuatrecasas that it represents this species, but it is definitely a *Bunchosia*. Aside from the distinctive inflorescence, the species is notable for its glabrous three-carpellate gynoeceum with distinct styles. The mature leaves are sparsely sericeous to glabrate on both sides.

Bunchosia nitida (Jacq.) DC., Prodr. 1: 582. 1824. *Malpighia nitida* Jacq., Enum. Syst. Pl. 21. 1760; Select. Stirp. Amer. Hist. 136. 1763.—TYPE: COLOMBIA. Bolívar: Vicinity of Turbaco, 200–300 m, roadside, 6–22 Nov 1926 fl, *E. P. Killip & A. C. Smith 14689* (neotype, here designated: GH!; isoneotypes: MICH! NY!).

Bunchosia cornifolia H. B. K., Nov. Gen. Sp. 5 [quarto]: 154. 1822 ["1821"].—TYPE: COLOMBIA. [Bolívar]: "Inter Turbaco et Carthagenae de Indias," *Humboldt & Bonpland* (holotype: P-HBK!, F neg. 37491!).

In the Colombian treatment of 1958, Cuatrecasas used *Bunchosia cornifolia* for this species, but mentioned in his discussion that *B. nitida* might be an older name for it. In the 1981 treatment for Panama, he and Croat continued to use *B. cornifolia* without comment. Jacquin's description of *M. nitida* fits the species well. The mature leaves are glabrate and shining above, and while the abaxial surface is actually thinly sericeous with very short, transparent, strongly appressed hairs, it appears glabrous to the naked eye. I have already used the name *Bunchosia nitida* for this species in Nicaragua (Anderson 2001b), and intend to do the same in the floristic treatment now in preparation for Costa Rica. The gynoeceum in *B. nitida* is two-carpellate and densely sericeous on both the ovary and the style; the two styles are completely connate, except that the stigmas are distinct. The fruit is unusually large for *Bunchosia*, 15–30 mm long when dried.

Bunchosia odorata (Jacq.) DC., Prodr. 1: 582. 1824. *Malpighia odorata* Jacq., Enum. Syst. Pl. 21. 1760; Select. Stirp. Amer. Hist. 136–137, pl. 177, fig. 41. 1763.—TYPE: COLOMBIA. Bolívar [now Sucre]: Alrededores de Colosó, 26 Apr 1963 fl, R. Romero-Castañeda 9750 (neotype, here designated: NY!; isoneotypes: MICH! MO!).

Bunchosia pilosa H. B. K., Nov. Gen. Sp. 5 [quarto]: 156. 1822 ["1821"].—TYPE: COLOMBIA. [Bolívar]: "Pr. Turbaco," fl, *Humboldt & Bonpland* (holotype: P-HBK!, WRA neg. 81-10-32; single leaf, probable fragment of holotype: F!).

This name has been in general use since Cuatrecasas applied it to this species in 1958. Niedenzu (1928) treated *B. odorata* as a species of uncertain position and used the name *Bunchosia pilosa*. The leaves are densely and persistently velutinous on both sides, with V-shaped hairs, quite unlike the other species in the area of Cartagena, so there can be no real doubt about the application of the name. As Cuatrecasas pointed out (1958, pp. 578–579), Jacquin in 1763 provided two descriptions for this plant, and they are somewhat contradictory. The first, on p. 136, states that the gynoecium is bicarpellate and the two styles are completely connate. The second, on p. 137, states that the gynoecium is sometimes bicarpellate and sometimes tricarpellate, and the styles are sometimes completely connate and sometimes distinct. Cuatrecasas stated that the plants from the area of Cartagena are consistently bicarpellate with the styles completely connate, and my own observations agree with his. It seems most likely that Jacquin's second description was based on a different species, not the one from Cartagena. It is rare for species of *Bunchosia* to vary in number of carpels, but that does occur in *B. mollis* Benth., which has velutinous leaves that can be very similar to those of *B. odorata* (Anderson 2001a). *Bunchosia mollis* is not known from Colombia, but it does occur in the coastal states of Venezuela, which Jacquin visited (Stafleu 1971). I suspect that Jacquin examined *B. mollis* when he was in Venezuela and later confounded notes on it, in the description on p. 137, with notes made on *B. odorata* at Cartagena, the source of the description on p. 136. In any case, this situation is further justification, if any were needed, for stabilizing the name through neotypification.

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